

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021483**Date Inspected:** 25-Feb-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspectors: Mr. Bao Qian, Lv Li Qing

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Huang Hongpei, stencil 037705 used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG segment 13BE weld SEG3009J-006. This QA Inspector observed ZPMC QC has recorded a welding current of 302 amps and 25.5 volts. Mr. Huang Hongpei appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Hong Jun, stencil 070254 used flux cored welding procedure WPS-B-T-2233-ESAB to make OBG Segment 13BE weld SA3214A-001-009. This QA Inspector observed ZPMC QC has recorded a welding current of 245 amps and 25.7 volts and Mr. Yang Hong Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Liu Min, stencil 044790 used flux cored welding procedure

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WPS-B-T-2232-ESAB to make OBG Segment 13CE welds DP3104-001-253 and 254. This QA Inspector observed ZPMC QC has recorded a welding current of 250 amps and 25.7 volts. Mr. Liu Min appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yuan Wensong, stencil 055491 used flux cored welding procedure WPS-B-T-2232-ESAB to make OBG segment 13AE weld SEG3007M-004. This QA Inspector measured a welding current of approximately 260 amps and 24.0 volts. This QA Inspector observed Mr. Yuan Wensong appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Wanyong stencil 050242 used flux cored welding procedure WPS-B-T-2233-ESAB to make OBG segment 13AE weld SEG3007C-262. This QA Inspector observed ZPMC has recorded a welding current of 252 amps and 26.0 volts. Mr. Wu Wanyong appeared to be certified to make his weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Kesong, stencil 020009 used flux cored welding procedure WPS-B-T-2233-ESAB to make weld SEG3007M-018. This QA Inspector observed a welding current of approximately 300 amps and 26.0 volts. Mr. Xu Kesong appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Luo Xuanping, stencil 067610 used shielded metal arc welding procedure WPS-B-P-2114-TC-U4B-FCM-1 to make OBG segment 14E weld SEG3019R-146. This QA Inspector observed a welding current of approximately 170 amps. This QA Inspector observed Mr. Luo Xuanping appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Gencheng, stencil 066418 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-FCM-Repair-1 to make weld repair of OBG segment 14E weld SEG3019P-172. ZPMC QC informed this QA Inspector that weld repair document B-WR-20247 documents this weld repair. This QA Inspector measured a welding current of approximately 170 amps and Mr. Yang Gencheng appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Kuai Wenshan, stencil 054013 used shielded metal arc welding procedure WPS-345-SMAW-3G(3F)-FCM-Repair-1 to make weld repair of ultrasonic rejections to OBG segment 14E weld SEG3019M-193. ZPMC QC informed this QA Inspector that weld repair document B-WR-20247 documents this weld repair. This QA Inspector measured a welding current of approximately 180 amps and Mr. Kuai Wenshan appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Linjiang stencil 051356 used flux cored welding procedure WPS-B-T-2233-ESAB to make OBG segment 14E weld SEG3019AZ-145. This QA Inspector observed a welding current of approximately 240 amps and 24.0 volts. Mr. Wang Linjiang appeared to be certified to make

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his weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Niu Duojun, stencil 037932 used shielded metal arc welding procedure specification WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make repairs of OBG segment 14E weld DP3161-001-215. ZPMC QC informed this QA Inspector that weld repair document B-WR-20250 documents this weld repair. This QA Inspector observed a welding current of approximately 165 amps, the base materials appear to have been preheated with electric heating elements and Mr. Niu Duojun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure specification WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make repairs of OBG segment 14E weld DP3167-001-246. ZPMC QC informed this QA Inspector that weld repair document B-WR-20271 documents this weld repair. This QA Inspector observed a welding current of approximately 190 amps, the base materials appear to have been preheated with electric heating elements and Mr. Yang Yunfeng appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Yong Shui, stencil 067656 used shielded metal arc welding procedure specification WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make repairs of OBG segment 14E weld DP3160-001-219. ZPMC QC informed this QA Inspector that weld repair document B-WR-20272 documents this weld repair. This QA Inspector observed a welding current of approximately 180 amps, the base materials appear to have been preheated with electric heating elements and Mr. Li Yong Shui appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Guo Taotao stencil 050969 used shielded metal arc welding procedure specification WPS-345-SMAW-2G(2F)-FCM-Repair-1 to make repairs of OBG segment 14E weld DP3167-001-039. ZPMC QC informed this QA Inspector that weld repair document B-WR-20271 documents this weld repair. This QA Inspector observed a welding current of approximately 165 amps, the base materials appear to have been preheated with electric heating elements and Mr. Guo Taotao appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhao Guanglin, stencil 044779 used shielded metal arc welding procedure WPS-345-SMAW-2G(2F)-FCM-Repair to make weld repair of ultrasonic rejections to OBG segment 13E weld SA3067-001-023. This QA Inspector measured a welding current of approximately 180 amps and Mr. Zhao Guanglin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Wanyong stencil 050242 used flux cored welding procedure WPS-B-T-2132-ESAB to make OBG segment 13AE welds SEG3007C-234. This QA Inspector measured a welding current of approximately 260 amps and 26.5 volts. Mr. Wu Wanyong appeared to be certified to make his weld. Items observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer
